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Goddard Space Flight Center
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NASA Scientists Determined To Unearth Origin of the Iturralde Crater

NASA scientists will venture into an isolated part of the Bolivian Amazon to try and uncover the origin of a 5 mile diameter crater there known as the Iturralde Crater.

Traveling to this inhospitable forest setting, the Iturralde Crater Expedition 2002 will seek to determine if the unusual circular crater was created by a meteor or comet.

Organized by Dr. Peter Wasilewski of NASA's Goddard Space Flight Center, Greenbelt, the Iturralde Crater Expedition 2002 will be led by Dr. Tim Killeen of Conservation International, which is based in Bolivia. Killeen will be assisted by Dr. Compton Tucker of Goddard.

The team intends to collect and analyze rocks and soil, look for glass particles that develop from meteor impacts and study magnetic properties in the area to determine if the Iturralde site, discovered in the mid-1980s with satellite imagery, was indeed created by a meteor.

If a meteorite is responsible for the impression, rocks in the area will have shock features that do not develop under normal geological circumstances. The team will also look for glass particles, which develop from the high temperatures of impact.

The Iturralde Crater Expedition 2002 team will extensively analyze soil in the impact zone for confirmation of an impact. One unique aspect of the Iturralde site is the 4-5 km deep surface sediment above the bedrock. Thus the impact was more of a gigantic "splat" rather than a collision into bedrock.

Water collects within the depression, but not on the rim of the crater, which is slightly higher than both the surrounding landscape and the interior of the crater. These subtle differences in drainage are reflected in the forest and grassland habitats that developed on the landscape.

It is precisely these differences in the vegetation structure that can be observed from space and which led to

the identification of the Iturralde Crater in the 1970s when Landsat Images first became available for Bolivia.

Dr. Wasilewski's team will conduct ground magnetometer surveys and will examine the area through an unmanned aerial vehicle (UAV) plane. The MagPlane MPX-100 will be fitted with a magnetometer, an instrument for measuring the magnitude and direction of the magnetic field.

The resulting data will be analyzed by associating the magnetic readings with geographical coordinates to map magnetic properties of the area. The magnetometer data could provide conclusive evidence as to whether or not the Iturralde feature is an impact crater.



MagPlane MPX-100

Geoff Bland, in the Wallops Observational Science Branch, provided vehicle system preparation for the MagPlane, a modified hobby-type vehicle. The 1/3 scale model of a Piper Cub has a wingspan of approximately 11 feet and a wing area of 17.4 feet. Bland also assisted with systems testing and taxing maneuvers.

Ted Miles, NASA Wallops Electrical Systems Branch, provided power for all the GSFC on-board systems and propulsion system.

Alice Rew, NASA Wallops Range and Mission Management Office, coordinated range support for the tests that were conducted from Wallops Island.

Teachers from around the world who are involved with the teacher professional development program, called Teacher as Scientist, have helped design the expedition. One teacher will be on-site assisting with data collection. University students from Bolivia will also be involved in the expedition.

More information on ICE2002 can be found at: <http://www.blueiceonline.org>

Wallops shorts.....

New Hire

Dr. Jerry Sterling has been hired as a materials engineer in the Applied Engineering and Technology Directorate. Sterling is a Salisbury native and a recent graduate from the University of California- Davis. He will be supporting balloon material research and development activities.

In the News

Eastern Shore Post

"Wallops Contractor Sentenced in Federal Court"

Dow Jones Int. News

"NASA Selects Bombardier FlexJet to Provide Jet Svcs"

Associated Press Newswires

"NASA to Test Time-Share Use of Jets"

Boston Globe

"Up Up and Away, British Balloonists Attempt to set World Record by Flying to Edge of Space"

NASROC Holds Memorial

Lt. Commander Ron LaBrec, Commander, U.S. Coast Guard Group Eastern Shore was the guest speaker during a lunch-time memorial service for the victims of the Sept. 11, 2001, attacks on America. Robert Nock, Wallops Safety Office, led the gathering in a short devotional.

Northrop Grumman employee, Jim Ayres was recognized for his service during the recent Involuntary Military Recall of Coast Guard Reservists. Ayres, a Senior Chief Petty Officer, was called to active duty from Sept. 25, 2001, to June 1, 2002, in the wake of the September 11 attacks.



PAO Digital Photo

Royce Cutler, NSROC Program Manager, (left), presents Jim Ayres with a clock in recognition of his military service.

The memorial service, held in the Machine Shop, Building F-10, was hosted by the NASA Sounding Rockets Operations Contract (NSROC).

7th Annual International Luncheon

11:30 a.m.
October 10
Building F-3



Admission to this popular yearly event is one covered dish of any nationality. All dishes will be labeled with the title and national origin. The deadline to register your dish is September 27.



For more information or to register your dish contact: Freda Johnson on x1466, Debbie Parks on x1062, or Sandra Banks on x2526.



Send your recipe to Debbie Parks at: Debra.M.Parks.1@gsfc.nasa.gov



Tailgate Sale

11:30 a.m.
September 25

At The Flag Court
(Across From The Cafeteria)

Aerobics Club News

The Wallops Aerobics Club will begin a new six-week session starting on September 16. Stay in shape for fall activities.

The following is the new class schedule:

Monday -- Noon to 12:30 p.m. Toning
Monday -- 5 to 6 p.m. Step Aerobics/ Toning

Tuesday -- Noon to 12:30 p.m. Aerobics

Wednesday -- Noon to 12:30 p.m. Toning
Wednesday -- 5 to 6 p.m. Step Aerobics/ Toning

Thursday -- 11:30 a.m. to Noon Ta'i Chi

Friday -- Noon to 12:30 p.m. Aerobics
Friday -- 4:40 to 5:40 p.m. Step Aerobics/Toning

For more information, call Annette Conger on x2596, or Jeanette Smolinski on x1512. Visit the Wallops Aerobics Club web page at: <http://www.wff.nasa.gov/WAC/>

Ta'i Chi class starts on September 19 from 11:30 – noon and will be held in the back of Building F-3. Call John Brinton on x1099 for more details.

Good Data Received from Poker Flight

by Craig Kletzing
Associate Professor, University of Iowa

The Black Brant XII sounding rocket mission, 40.016 UE, was launched from Poker Flat Research Range, Alaska on Feb. 6, 2002. This mission easily exceeds the minimum success criteria – all the TM links worked. Data was received from all the main instruments.

One particle detector (out of 10) failed early in flight, however, it was the least important of the particle measurements and will have only a very minor impact on the science we will be able to do.

I was very pleased with the performance of the entire payload team. They worked well together and the payload came together quite efficiently. I would like to single out Jay Scott as a particularly effective payload manager. He made sure things got done on time and kept the whole effort together and moving ahead.

The Wallops sounding rocket effort continues to provide the level of expertise and excellence that scientific experimenters have come to know and enjoy. Keep up the good work!

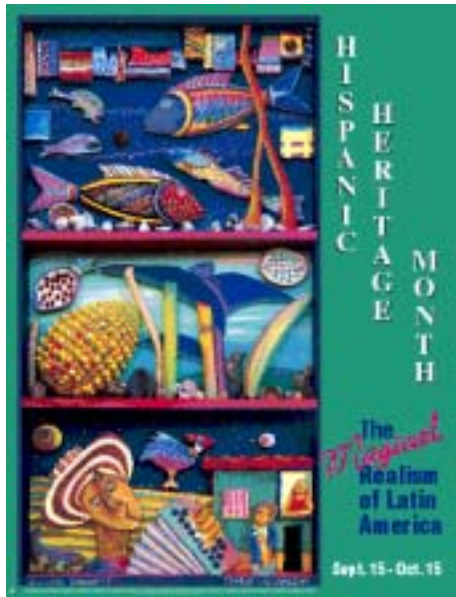
American Heritage Week
October 7 – 11

Position Description
Management

Training Session for
Supervisors, Managers and
Administrative Officers

10:30 a.m. to 12:30 p.m.
September 23
Building E-104

Training registration forms are not required. Call x66-7918 to register. Bring your user i.d. and password to the training session. Contact Lori Moore, x66-6958, for further information.



Solar Safe

The Wallops Health Unit is sponsoring a Lunch n Learn on from 11:45 a.m. to 12:45 p.m. on September 18 in Building E-108, room 318. The topic is Solar Safe.



- How to live, work in and enjoy the outdoors while reducing health risks to your skin
- What to look for on your skin and when to ask for help

The guest speaker will be Elizabeth Mangieri-Omps MSN, RN, CS, FNP-C, a board certified Family Nurse Practitioner with extensive dermatology experience.

For further information contact the Health Unit on x1766.

Individual Development
Planning (IDP) Workshop

When:
September 23, 2002 from 1 to 3 p.m.

Where:
Building E-108, Room 318

The Individual Development Planning (IDP) is a process for identifying work experience, training and other activities, which contribute to one's development and job performance.

It involves assessing the employee's skills and expertise in relation to current or future job requirements and then identifying appropriate training and other developmental experiences. Orientation to the IDP process is offered in sessions for employees, supervisors or intact work groups.

- You will learn:
- The individual planning processes used by supervisors and employees
 - The development resources and opportunities available at Goddard
 - The roles and responsibilities of the employee, supervisor and organization

Civil Servant employees slated for assuming new job duties or changing jobs should attend.

A Request for Training is required and can be found at: <http://ohr.gsfc.nasa.gov/Forms/GSFC/home.htm> Submit the authorized form to Code 114.

For more information, call Tracey White on x66-7823.

Inside Wallops is an official publication of Goddard Space Flight Center and is published by the Wallops Office of Public Affairs, Extension 1584, in the interest of Wallops employees. Recent and past issues of *Inside Wallops* also may be found on the NASA Wallops Flight Facility homepage: www.wff.nasa.gov

Editor Betty Flowers